



September 30, 2002

Ms. Normajean P. Eleazer  
General Services Administration, NCR, Service Delivery Support  
Safety, Env. & Fire  
7<sup>th</sup> & D Streets, SW, Room 2080  
Washington, DC 20407

**RE: Fiber in Air (FIA) Sampling, Commerce Building, Washington, DC  
Order Number P-11-02-DC-0291; ACT Number P14576038;**

Dear Ms. Eleazer:

In accordance with contract number GS11P01MQD0055, Tidewater, Inc. has performed a fiber in air (FIA) sampling event within the US Department of Commerce Building, located at 1401 Constitution Avenue, NW, Washington, DC.

This report summarizes findings from the monitoring performed by Tidewater between September 9, and September 16, 2002. Tidewater industrial hygienist Ms. Chamini Vithanage performed the FIA sampling.

During the sampling event, Tidewater's industrial hygienist collected a total of 120 air samples that were analyzed via phase contrast microscopy (PCM). All samples were collected using low volume air sampling pumps. The sampling pumps were calibrated to a flow rate of 2.5 liters/minute and samples were collected over an eight-hour period to obtain a minimum sampling volume of 1200 liters per sample. All samples were collected within the normal breathing zone during regular business hours of 8:00 a.m. and 5:00 p.m.

The samples were analyzed on-site using NIOSH Method 7400 by Tidewater's microscopist, who has successfully completed the NIOSH 582 equivalent course entitled "Analyzing Airborne Fibers" and participates in Tidewater's laboratory quality control/quality assurance program.

The PCM results indicate that some of the samples analyzed contained fiber levels above 0.01 fibers per cubic centimeter of air (f/cc). These samples were obtained from the 3<sup>rd</sup> and the 4<sup>th</sup> floors of the building as follows:

Sample ID	Date	Location
090902-COM-15	09-09-2002	3 <sup>rd</sup> Floor by Room 3330S
090902-COM-16	09-09-2002	3 <sup>rd</sup> Floor by Room 3312
090902-COM-18	09-09-2002	3 <sup>rd</sup> Floor in Women's Rest Room, Corridor 7
090902-COM-19	09-09-2002	3 <sup>rd</sup> Floor Corridor 2
091002-COM-2	09-10-2002	4 <sup>th</sup> Floor by Elevator, Corridor O
091002-COM-5	09-10-2002	4 <sup>th</sup> Floor in Room 4713
091002-COM-6	09-10-2002	4 <sup>th</sup> Floor in Room 4898

Locations with PCM readings above 0.01 f/cc were re-sampled for upgraded analysis using transmission electron microscopy (TEM), to determine if asbestos fibers were present. TEM analysis was performed by EMSL Analytical, Inc. The TEM laboratory analysis results indicate that none of the samples contained asbestos or fiber levels at or above 70 structures per square millimeter (s/mm<sup>2</sup>).



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The sample analysis results and corresponding locations at which the FIA samples were obtained are included in the attached tables 1 through 6. The field sampling data sheets are included in Appendix A of this report. The TEM analysis results and related chain of custody form are included in Appendix B.

A potential source of fibers may be particulate dust fibers being released from torn pipe insulation. Tidewater's industrial hygienist noted possibly asbestos containing pipe insulation located near the ladder used to go up to the roof in torn and damaged condition. Leaning against the pipe or equipment rubbing against the pipe while climbing the ladder could possibly have caused the damage observed. In addition, there was a door rubbing against the plastic wrap placed around the pipe insulation located at the entrance to the room near Elevator Group 4. The door has apparently abraded the plastic wrapping, which may possibly have released fibers into the air.

During the FIA survey, Tidewater's industrial hygienist also observed several partially torn pipe insulation wraps located in the attic of the building. The damaged pipe insulation was noted to be a potential hazard for releasing fibers in the air, especially at locations where objects contact the insulation wrap. Tidewater recommends further investigation of the attic area to determine if the observed pipe insulation is a asbestos containing building material (ACBM) and the need for any abatement or encapsulation work to the damaged pipe insulation. Tidewater also recommends that damaged pipe insulation in other areas be tested for ACBM and repaired or encapsulated, and preventive measures implemented to reduce the likelihood of future damage.

Tidewater is pleased to have performed this FIA study. Please call us at (410) 997-4458 if you have any questions regarding this report.

Sincerely,

**TIDEWATER, INC.**

Allen Cooley, CSP  
Project Manager

**APPENDIX A**  
**PCM DATA SHEETS**

**APPENDIX B**  
**TEM ANALYTICAL RESULTS**